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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,826	11/22/2002	Santosh Prasad Gaur	RPS920020019	9652

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EXAMINER
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CORRIELUS, JEAN M

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/065,826

Applicant(s)

GAUR ET AL.

Examiner

Jean M Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This office action is in response to the application filed on November 22, 2002, in which claims 1-27 are presented for examination.

#### ***Drawings***

2. Applicants are required to furnish the formal drawings in response this office action. No new matter may be introduced in the required drawing. Failure to timely submit a drawing will result in **ABANDONMENT** of the application.

#### ***Information Disclosure Statement***

3. The information disclosure statement filed on November 22, 2002, complies with the provisions of 37 CFR 1.97 and MPEP § 609. It has been placed in the application file. The information referred to therein has been considered as to the merits.

#### ***Related Application***

4. Applicant(s) is/are to provide the serial number and the status of the co-pending application listed in page 4 of the specification. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bass et al (hereinafter "Bass") US Patent no. 6,675,163.

As to claim 1, Bass is directed to the system for finding full match between a search pattern and a pattern stored in a leaf of the search tree. In particular, Bass discloses the claimed "providing a control structure for leaf data comparison as a control vector and a match key" by comparing the input key with the pattern stored in the leaf (col.9, lines 28-40); and "utilizing the control vector to direct types of comparison tests performed with the math key" by determining whether caching is enabled the size of the key and the leaf and the type of search to perform (col.10, lines 5-15).

As to claim 2, Bass discloses the claimed "the control setting for a chosen portion of the match key"(col.10, lines 25-61).

As to claim 3, Bass discloses the claimed "a two-bit value" (fig.3; col.10, lines 23-63).

As to claim 4, Bass discloses the claimed "providing the control structure in a fixed block of memory" (col.11, line 20-col.12, line 40; col.15, lines 10-33).

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As to claim 5, Bass discloses the claimed “allowing storage of additional data in the fixed size block of memory following the control structure” (col.11, line 20-col.12, line 40; col.15, lines 10-33).

As to claim 6, Bass disclosed claimed “control setting to indicate a masked compare test is needed” (col.12, line 45-col.13, line 60).

As to claim 7, Bass discloses the claimed “a mask pattern and key value for the masked compare test” (fig.10; col.14, lines 7-55).

As to claim 8, Bass discloses the claimed “control setting to indicate a range compare test is needed” (fig.10; col.14, lines 7-55).

As to claim 9, Bass discloses the claimed “maximum and minimum value of a range compare test” (fig.10; col.14, lines 7-55).

As to claims 10-18, the limitations of claim 10-18 have been noted in the rejection of claims 1-9 above. In addition, Bass discloses “an embedded processor (col.5, lines 30-57), and tree search engine” (fig.14; col.9, lines 12-40); and “external memory (col.5, lines 50-57) coupled to the embedded processor, wherein the tree search engine performs on leaf data in the external memory according to a control structure comprising a control vector an match key in the leaf data” (col.9, lines 28-40; col.10, lines 5-15).

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As to claims 19-25, the limitations of claims 10-25 have been noted in the rejection of claims 1-9 above. In addition, Bass discloses the claimed "storing leaf data within fixed size blocks of memory in the external DRAM as a control vector and match key"(fig.14; col.9, lines 12-40; col.10, lines 5-15); "utilizing the control vector and match key to direct comparison done on the leaf data by a search engine of the embedded processing system" (fig.14; col.9, lines 12-40; col.10, lines 5-15).

As to claims 26-27:

Claims 26 and 27 are computer readable containing program instructions for performing the method of claim 1 and 19. They are, therefore, rejected under the same rationale.

### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (703) 306-3035. The examiner can normally be reached on Monday - Friday (12:00pm - 7:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M. Corrielus

Patent Examiner

September 26, 2004